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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/549,534

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Eberhard Gobel

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EXAMINER

YIP, WINNIE S

ART UNIT

PAPER NUMBER

3636

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/549,534	<b>Applicant(s)</b> GOBEL, EBERHARD	
	<b>Examiner</b> Winnie Yip	<b>Art Unit</b> 3636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 30-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This office action is in response to applicant's amendment filed on August 20, 2008.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Response to Evidence***

1. The Affidavit, EXHIBIT A and B, submitted on August 20, 2008, has been considered but is ineffective to overcome the rejections since the EXHIBIT A does not indicated to be the umbrellas of cited references.

#### ***Claim Rejections - 35 USC § 103***

2. Claims 30-33, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chinese Patent Application Publication No. CN 2381177 in view of US Patent No. 4,061,154 to Cox et al.

Chinese document shows and discloses an umbrella comprising: a central axis-defining shaft (20), ribs (21) pivotally connected to the shaft, an actuator (202) movable axially along the shaft, spreaders (22) pivotally mounted between the actuator and the respective ribs, and a flexible canopy (24) spanned over the ribs as claimed, wherein the ribs and spreaders being made of material generally has a spring strength such that the canopy in the open position forming a spring element acting as a damping member as an general umbrella as old and known in the art as claimed. The document further teaches the umbrella including a slide (231) shiftably mounted along each respective rib and located adjacent an outer end of the rib respectively, and respective abutments (232) mounted on the respective ribs at a spacing from the respective rib outer end for limiting sliding of the slides, and respective brace struts (23) each having an outer

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end pivotally mounted on the slide (231) and an inner end pivotally mounted on the respective spreader (23) between two ends of the spreader, wherein the outer end of the brace strut being able to move by the slider between the outer end of the rib and the abutment with respect to the effective of wind such that the brace struts being able to resist compression and tension of the ribs to resist a complete inversion of the canopy with respect to effective of wind, and preventing broken of the ribs with respect to the force by the wind, such that the outer section of the umbrella of Chinese Document will be possible but a complete inversion of the canopy is inhibited circumferentially.

Although, the document does not specifically define the ribs, the spreaders, the brace struts, and the slides being made of plastic, Cox et al. teach an umbrella having ribs (40), spreaders (70), and connectors (74 v. 78) being made of durable plastic material, as known in the art, such that the umbrella has a lightweight frame that can be easily and inexpensively molded frame and can be resiliently bend to flex in response to being deformed such as when the umbrella is overturned (see col.2, lines 10-19; col. 5, lines 35-45, ) to enhance the durability of the umbrella. Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the umbrella of Chinese document having the ribs, spreaders, and slides being made of durable plastic material, such as fiber glass reinforced plastic as taught by Cox et al. to provide an umbrella with a lightweight and inexpensively molded frame to take the advantages of the sufficient impact and spring strength characterizes and wear properties of the plastic such that the frame provides a damping resistance to resist the inversion of the canopy in a wind storm and to restore automatically when the wind pressure drops. All of the foregoing

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is within the skills, competence and knowledge of the person with ordinary skills in the covering art.

Regard to claim 31, the Chinese document shows the umbrella having the length of each rib between its outer end and its pivotal connection between the outer end of the spreader is capably formed to be greater than a length of the respective brace strut plus a length of the respective spreader between its pivotal connection with the rib and with the brace strut as claimed.

Regarding claims 32-33, although the Chinese document and Cox et al. do not explicitly define the rib, the spreader, and brace having specific diameters as claimed, since the applicant has not disclosed that the specific diameter of the frame of the umbrella solves any stated problem or is for any particular purpose, it would have been held to be within the general skill of a worker in the art to select the umbrella having frame elements such ribs, spreaders and braces being formed with suitable diameters to accommodate the size of the umbrella in various applications on the basis of its suitability in use as a matter of obvious design choice. And, it appears that the claimed umbrella would perform equally well being made of a plastic with specific diameter such as 2-6 mm as claimed and such modification would not otherwise affect function of the device which relies on its structure and not its particular material and diameter for its function.

Regard to claim 35, The Chinese document teaches, see Fig. 5, the slide (321) being formed as a tube engaged around the respective rib and forms a pivot such that the slide being pivotally mounted between the rib and the spreader as claimed.

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3. Claims 30-33, and 35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 1,167,431 to Raabe in view of US Patent No. 4,061,154 to Cox et al.

Raabe shows and teaches an umbrella comprising: a central axis-defining shaft (A), an actuator (no number) movable axially along the shaft, a frame including a plurality of ribs (C) having inner ends being pivotally secured to an upper end of the shaft and outer ends being movable between closed and opened positions, a plurality of spreaders (D) each having an outer end being pivotally secured to one of the ribs by a connector (H) and an inner end being pivotally mounted on the actuator respectively, and a flexible canopy (not shown) spanned over the ribs inherently as a known umbrella in the art. Raabe further teaches the umbrella comprising a plurality of slides (slidable clamp b) each shiftable along one of the ribs adjacent the outer end of the rib, a plurality of brace struts (F) being distributed angularly and having an inner end being pivotally connected to the respective spreader (D) by a fastener (J), and having an outer end being pivotally mounted to the respective slid (b) on the rib adjacent to the outer end of the rib, and an abutment (S') mounted on the respective rib between the connector (H) and the outer end of the rib "for limiting the inward sliding movement of the slide" toward the inner end of rib (see page 2, lines 6-7) such that the outer end of the brace strut (F) causes the rib being curved inside so as to prestress the umbrella when the canopy being opened in a direction resisting inversion of the canopy, and wherein the brace strut (F) provides a means for providing efficient means for insuring that the umbrella with not be turned inside out (turned from inside position to and an reversed out direction) in a storm.

Although Raabe does not define the ribs, the spreaders and the brace struts being made of plastic and with specific diameter as claimed, Cox et al. teach an umbrella having a frame

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including ribs (40) and spreaders (70) being made of fiber glass reinforced plastic (see col. 3, lines 1-12) such that the umbrella has a lightweight frame with the ribs and spreaders being resiliently bend in response to be deformed rather than irreversibly deforming or breaching (see col. 5, lines 35-45). Therefore, it would have been obvious design choice for one of ordinary skill in the art at the time the invention was made to modify the umbrella of Raabe having the ribs, the spreaders, the brace struts, and the slider being made of durable plastic as taught by Cox et al. to provide an umbrella with a lightweight and inexpensively molded frame to take the advantages of the sufficient impact and spring strength characterizes and wear properties of the plastic such that the frame provides a damping resistance to resist the inversion of the canopy in a wind storm and to restore automatically when the wind pressure drops. All of the foregoing is within the skills, competence and knowledge of the person with ordinary skills in the covering art.

Regarding claim 31, Raabe shows the umbrella having a length (GH) of each rib (C) between its outer end (G) and its pivotal connection (H) with the outer end of the respective spreader (D) is at least equal to or substantially greater than a length of the respective brace strut (F) plus a length (KH) of the respective spreader (D) between its pivotal connection (H) with the respective rib (C) and the connection (K) with the respective brace strut (F) as claimed.

Regarding claims 32-33, although Raabe and Cox et al. do not explicitly define the rib, the spreader, and brace having specific diameters as claimed, since the applicant has not disclosed that the specific diameter of the frame of the umbrella solves any stated problem or is for any particular purpose, it would have been held to be within the general skill of a worker in the art to select the umbrella having frame elements such ribs, spreaders and braces being formed

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with suitable diameters to provide a sufficiently support to the rib and brace to accommodate the size of the frame of the umbrella to be supported in various applications on the basis of its suitability in use as a matter of obvious design choice. And, it appears that the claimed umbrella would perform equally well being made of a plastic with the spreaders being made with a specific diameter such as 2-6 mm as claimed and such modification would not otherwise affect function of the device which relies on its structure and not its particular material and diameter for its function.

Regarding claim 35, Raabe further teaches the slide (5) including a U-shaped section (c-a-d) and a cover (x) being enclosed to form a tube to engage around and shiftable along the respective ribs (C), a shoe (b) forming a pivot for connecting the outer end of the respective space struts (F) as claimed.

4. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chinese Patent Application Publication No. CN 2381177 or US Patent No. 1,167,431 to Raabe in view of US Patent No. 4,061,154 to Cox et al. as applied to claim 30 above, and further in view of US Patent No. 6,715,504 to Chen.

Although Chinese document '177, and Raabe, and Cox et al. do not specifically define the umbrella having a set of second ribs and second spreaders having no brace struts, or in another word, the umbrella having two set of ribs and spreads, with one set having brace struts mounted therebetween, and another set, or alternatively for every other ribs and spreaders, there is no brace strut mounted therebetween as claimed, Chen teaches an umbrella having every other ribs (A) and respective spreaders (3) being formed with a respective brace pivotally connected



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therebetween to provide different spring strengths to the frame of the umbrella. It would have been obvious to one ordinary skill in art at the time the invention was made to modify the umbrella of Chinese document or Raabe as modified by Cox et al. having the frame formed with every other ribs and the respective spreaders provided with a respective brace struts therebetween as taught by Chen to reduce the material of the frame but with sufficient wind resistance as desired.

### ***Response to Arguments***

5. Applicant's arguments filed August 20, 2008 have been fully considered but they are not persuasive for the following reasons:

A. In response to applicant's argument that the references to Chinese Document 2381177 and Cox et al. do not teach the umbrella being "only a sectoral inversion is possible" as claimed because of CH '177 teaches a metal-frame can not be inverted and Cox et al. teaches where complete inversion is possible, it is unpersuasive. **First**, as described in the specification, applicant's claimed invention is used to solve problem to prevent the frame of the umbrella being inverted. The claimed language "only a sectoral inversion *is possible*" which means the umbrella frame may be, or to achieve the better result, with complete no inversion can be *also possible*. **Second**, while it is true that CH'77 does not teach the frame being made of plastic material as claimed, and Cox et al. does not teach have brace struts and slide such that can be complete inverted, the rejection was based upon the CH '177 in view of Cox et al. not CH '177 alone, otherwise our rejection would have been entered under section U.S.C. 102 of the statute. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on

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combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, as applicant admits, CH '177 discloses the umbrella having a frame including brace struts and slides as claimed to prevent the umbrella being turnover (or to be completely inverted) to solve the same problem as the claimed invention except that CH '177 does not define the ribs, the spreaders, and brace struts being made of plastic to achieve the umbrella frame having suitable flexibility. Cox et al is used to teach an umbrella having a frame including ribs, spreaders, and connectors being made to take the advantages of the sufficient impact and spring strength characterizes and wear properties of the plastic to provide the umbrella frame with a damping resistance to resist the inversion of the canopy in a wind storm and to restore automatically when the wind pressure drops. Since both references being in the same field of endeavor, one of ordinary skill in the art would have been obvious to modify the frame of CH '177 being made of durable plastic as taught by Cox et al. as an obvious matter of material design choice to take the advantages of the sufficient impact and spring strength characterizes and wear properties of the plastic such to provide the umbrella frame of CH '177 with lightweight and flexibility while to prevent complete inversion of the frame in a wind storm, and also prevent breaking of a frame when the frame is sectoral inversion as possible under a strong wind as a result to solve a same problem as the claimed invention. Accordingly, a prima facie obviousness has been established. The rejections are sustained.

B. With applicant does not provide an argument to discuss the claims 30-35 as being rejected under 35 U.S.C. 103 (a) as being unpatentable over US Patent No. 1,167,431 to Raabe in view of US Patent No. 4,061,154 to Cox et al. Therefore, the rejections are sustained.

C. With applicant does not provide an argument to discuss the rejection to claim 34 (as a typo-error of claim 24) as being modified by US Patent No. 6,715,504 to Chen, the rejection is sustained.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Inquiry Contacts***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Winnie Yip whose telephone number is 571-272-6870. The examiner can normally be reached on M-F (9:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Dunn can be reached on 571-272-6670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Winnie Yip/  
Primary Examiner,  
Art Unit 3636

wy  
November 10, 2008